DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-014917 Address: 333 Burma Road **Date Inspected:** 16-Jun-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes No Li Yang **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A Weld Procedures Followed: N/A **Electrode to specification:** No Yes No Yes N/A N/A **Qualified Welders:** No **Verified Joint Fit-up:** Yes No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS: Delayed / Cancelled:** Yes No N/A

34-0006 **Bridge No: Component: OBG Segment**

Summary of Items Observed:

On this date Caltrans OSM Quality Assurance (QA) Inspector, Dan Hernandez was present during the times noted above to observe the fit up, welding and related activities associated with the fabrication of the San Francisco Oakland Bay Self Anchored Suspension Bridge at Zhenhua Port Machinery Company (ZPMC) facility on Changxing Island.

OBG Trial Assembly Yard

Segment 7DW

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as SSD25-PP057-222. The welder is identified as #037996 and was observed welding in the 4G (overhead) position using approved Welding Procedure Specification WPS-B-P-2214-TC-U4b-FCM-1.

This QA Inspector observed Shielded Metal Arc Welding (SMAW) in progress of a Complete Joint Penetration (CJP) weld joint. The Weld joint is designated as OBW7E-052. The welder is identified as #066261 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-B-P-2213-B-U2-FCM-1.

This QA Inspector observed Base Metal Repair using Shielded Metal Arc Welding (SMAW) in progress at locations of removed tack welds along the exterior of the FL3 web plate at bolted splice plate fit up. The welder is

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

identified as #048800 and was observed welding in the 3G (vertical) position using approved Welding Procedure Specification WPS-345-SMAW-3G (3F)-FCM-repair-1 for CWR1335.

Segment 8AW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Deck Plate at locations of removed fit up plates at the 7EW/8AW field splice.

Segment 8BW/8CW

This QA Inspector observed ABF personnel performing Magnetic Particle Testing on the Deck Plate and Side Plate counter weight side, at locations of removed fit up plates at the 7EW/8AW field splice.

Segment 7EW/8AW

This QA Inspector observed grinding of the beveled edge of the Deck Plate I-ribs at the counter weight side field splice location.

Lift 8 West

This QA Inspector observed ZPMC personnel performing Magnetic Particle Testing on approximately Six (6) Traveler Rail Brackets at the Side Plate Connection Plate and Tube Steel post.

ZPMC Quality Control (QC) Inspector is identified as Zhang Hai Tao. QA Inspector observed QC Inspector verify welding parameters. The welding variables recorded by QC appeared to comply with the Applicable WPS.

BAY 11 - Bolt Testing Room

This QA Inspector observed ZPMC personnel performing Rotational Capacity testing and Pre-installation verification of required torque for A325 High Strength Bolt assemblies with a Skidmore-Wilhelm Model MS serial number 15866 (calibration expiration date 4/29/11) and torque wrench identified as #2 (calibration expiration date 3/10/11) on the follow bolts:

M20x55 DHGM200027 M16x55 DHGM160040

5 bolt assemblies were tested for each lot

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang, 150-0042-2372, who represents the Office of Structural Materials for your project.

Inspected By:	Hernandez, Dan	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer